

# ABSTRACT

In order to form a device for detecting and preprocessing weights acting on a vehicle seat in such a way that it can be used in particular in conditions which are very difficult in terms of measuring technology, and in particular under the other special ambient conditions within a vehicle, and the weighing signal of which is substantially uninfluenced by this and can consequently provide a reliable parameter for airbag activation, it is proposed that this device comprises at least three load cells, which are disposed on load-carrying parts of the vehicle seat at corner points of an imaginary polygonal area and in each case generate a weighing signal corresponding to the weight, and an electronic evaluation circuit, which receives and preprocesses the weighing signals of the load cells and generates an output signal based on the weighing signals, the evaluation circuit comprising an evaluation function with which a localization of the center of gravity of the weight acting on the vehicle seat can be carried out from the individual weighing signals of the at least three load cells, and the evaluation circuit comprising a correction function, with which force bypasses can be taken into account in the forming of the output signal.